

SFA - The Magazine

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FY2001

Volume II - Issue 3

Modernization Blueprint Version 3.0 Released!

Tells Story of PBO Progress

"The Government gets an 'A'."
The Washington Post October 5, 2000

#SFA20002001v521601\$\$\$WEHELPPUTAMERICATHROUGHSCHOOL\$\$\$

U.S. Department of Education - Office of Student Financial Assistance Washington, DC 20202

PLUS

Consistent Answers for Our Customers page 24

Electronic Signature Enables E-Prom Note! page 23





Working Together, Building a Future

Student Financial Assistance

Chief Operating Officer
U.S. Department of Education
Washington, DC 20202

Fall 2000

Dear Colleagues,

This edition of the SFA Modernization Blueprint marks its first anniversary and a lot of progress toward transforming SFA. We've already introduced new products, retired old systems, and made integration progress, but there is much left to do.

Our vision of the future is simple, but powerful, and it hasn't changed. We're moving from the old "hairball" of legacy systems built over 30 years, to a new integrated service and delivery system. We want you to be able to get data from us easily at any time and send data to us using widely supported tools and standards.

Our business imperative is to give you a single point of access so you can easily get data from SFA, at any time from anywhere, using tools and communication standards embraced by leading commercial businesses. We're moving into the world of e-Commerce to offer you more electronic options. The idea is to give you more service options that fit together with changes in your own business.

Our information technology strategy, which supports our service commitments to you, is to use Internet tools and communication standards that are already supported by leading commercial practices. Web portals, which are gateways to information you can interactively tailor to your needs, are a linchpin of our plans. We're adding new customer relationship management (CRM) tools to package information and services for you.

Everything starts with business process requirements, and we detailed those in our first Blueprint last year. We continue to examine those requirements critically, with an eye to eliminating work for all of us. This process reengineering is iterative because many different community sectors are involved, and we want to understand potential impacts before we move.

Behind the scenes, we're introducing new enterprise information architecture and data management so we can more rapidly answer your information needs. New tools—like middleware and CRM—are letting us make better use of the data you've already provided to us. Together we're considering additional ways to share data where it's to everyone's benefit. We're using other new tools to improve our internal systems planning and development.

This new Blueprint is shorter and more concise, so you can more easily digest the overview. We put the detail behind the scenes —it's still there, and still central to our success. See it all on our Web site.

Thanks for helping us make this exciting modernization successful. We're well on the road to that future vision we all share.

Best regards, Greg Woods

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"We Help Put America Through School"



Student Financial Assistance

Chief Information Officer
U.S. Department of Education
Washington, DC 20202

Spring 2000

Dear Fellow Aid Professional:

I'm pleased to share our progress in creating a modern, integrated, easy to use financial aid process for America's students. We're getting there guided by a core set of values and standards – using best-in-business, proven practices.

We're defining a systems architecture that will help us grow and build our systems in a way that will ensure compatibility in the future. The architecture defines how hardware, software, work flow and data management elements work together. This solid foundation means we'll keep our systems integrated as we grow.

We've also adopted a new way of doing business: we will invest in solutions instead of software. Instead of buying programs to do what we need, we are contracting with leaders in modernization to provide outputs that will help you do your job. We will measure our success and our partners through performance and results.

In cases where it's cost effective for us to invest in software solutions, we're going to use currently available software – products that are proven, tested, reliable and much cheaper than software designed from scratch. We're already rolling out some of these solutions on the Internet. We're using middleware to pull data from a number of legacy systems to give you all the information you need in one place – through customized Web portals. Soon, accessing SFA services and information will be as easy as it is on your personalized Yahoo! or AOL site.

It took us longer than we thought it would to publish this third version of the Blueprint. The core issue was more projects than money. Fortunately, negotiations with our operating and modernization partners will launch several projects this year as shared in savings deals, like the successful Central Data Systems retirement. While we've been working on those arrangements, project work has continued so we haven't lost any ground. We've also been talking to you about all our initiatives, like Common Origination and Disbursement and paperless prom notes, so we don't expect this Blueprint to surprise you.

I invite you to explore this Blueprint and let us know what you think. We've added hyperlinks to the text that will take you to discussions and further detail on certain topics. For those of you who (like me) want to read all of the gritty technical details, we'll soon go live with a new site (technologyhandbook.sfa.ed.gov) that contains details about SFA technology policies, standards, tools, security and other technical topics.

So, join me on the journey to a new future in information systems at SFA.

Best regards, Steve Hawald

The Modernization Blueprint – New Products and Integration

Where We Are Today

This Modernization Blueprint covers PBO progress toward our goals. It sets out our overall design for e-commerce and system integration. Readers can use the Blueprint to measure our achievements as we transform SFA into an organization sharply focused on its customers, employees, and unit costs.

In this document, we've highlighted specific "PBO Key Initiatives" that will help us achieve success this year and next. These PBO Key Initiatives represent critical undertakings that we and our Modernization Partner are accomplishing.

We're updating our FAFSA on the Web site, and beginning the transformation into our Common Origination and Disbursement system. In addition, we are consolidating a number of our financial data sources and processes into an accessible and robust Financial Management System that focuses on creating a fully integrated e-Business Center.

We're also moving towards the creation of a common "window" to SFA by implementing a Web Portal with specific views attuned to the needs of each of our customer groups as well as our employees and the general public. To that end, we have launched our first portal component, the "Schools Portal" with plans for adding more customizable capabilities as we launch the other components.

PBO Key Initiatives FY2001

- Turbo FAFSA
- Common Origination & Disbursement
- Financial Management System with E-Business Center
- NSLDS Mad Dog Changes
- Schools Portal
- •E-Signature and Promissory-Note
- Consistent Answers for Customers (Customer Data, Contact Centers, CRM)
- Human Resources Support Systems
- Product Support Analysis

We're concentrating our efforts on processes and systems that will take us further in becoming a truly high-performing organization. A number of these deal directly with processes and systems with which our customers interact on a daily basis. We've focused our attention to ensure that each of our modernization efforts provides a real and measurable business result for our students, schools, and financial partners.

Electronic signature capabilities and promissory note technologies will allow us to interact electronically with customers in a secure environment. We are pledged to ensuring integrity, privacy, and reliability of financial information.

We're well on our way to updating the way we directly deal with our customers, by equipping our employees with the tools to deliver consistent answers to questions.

We're also concentrating on our people. We're creating a Human Resources organization that will empower our people to make the right decisions, enable them to build the right skills, and reward them for high performance.

Obviously a big component of our transformation is enabled by technology. We're accelerating the change from the old "hairball" of tangled separate systems to a new future technology – our target state – that makes business simpler and integrates data and systems into single points of access tailored for each and every customer. It all works together with our PBO Key Initiative concept. As we untangle the old "hairball" of non-integrated systems, we are focusing on building the right

infrastructure to support our key initiatives. These initiatives include multiple projects and represent the implementation of new processes and systems, and they also represent the "tombstoning" of old legacy systems.

We have tombstoned one of our legacy systems – The Central Database System (CDS). This represents our first "share-in-savings" deal with our Modernization Partner. Our savings will approximate \$50 million which will enable us to pay the project fees from the savings and not from appropriated funds. ◆

Where We Started And Where We're Going

We're continuously monitoring and assessing our investment decisions. We've implemented an investment review process to make

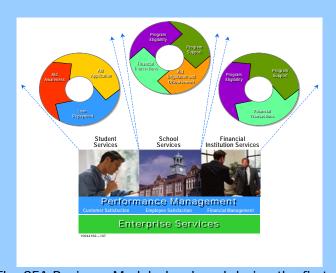
decisions on projects and initiatives which will achieve our overall performance goals. We also assess how each initiative and project would directly impact our customers.

This Blueprint tells the story of PBO progress from our customers' perspective – regardless of what system or process they are using. We have already started to provide more "windows" allowing our customers to enter the new SFA. Whether a customer accesses the SFA portal to initiate a process, reviews their account information, or updates their financial data, we want that process to appear seamless and user-friendly as possible.

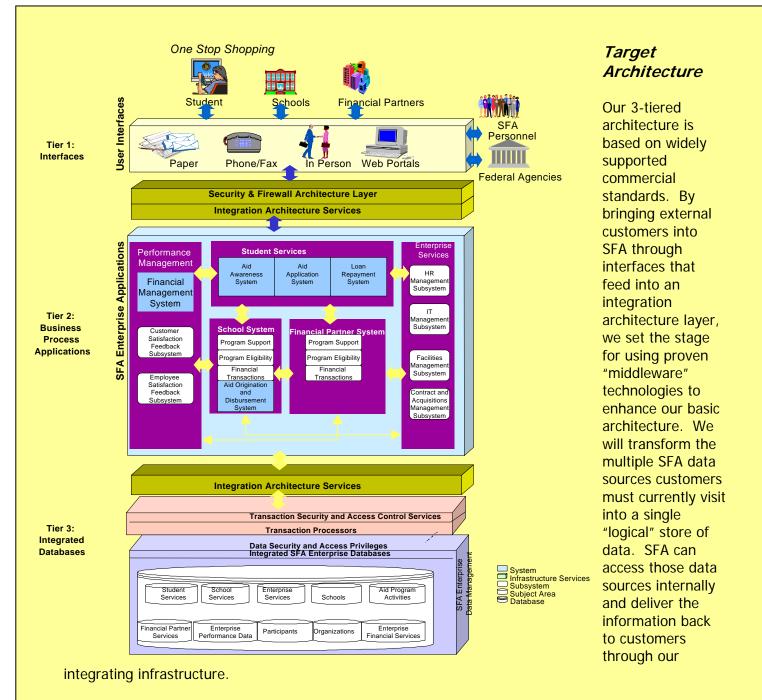
We want our customers to be able to

access SFA through any of our contact points — and get the same consistent answers through every contact. We are putting into place new tools to provide the right answer to any question – even the toughest ones.

SFA Business Model – The Beginning of Our Progress



The SFA Business Model, developed during the first year of the Modernization Effort, is the continuing touchstone in our modernizing evolution. Our plans and development are based on this model. ◆



This "back-office" strategy allows us to create a technical infrastructure that operates behind the scenes, but provides the technical capability to deliver services to our customers. Using industry recognized middleware and internally enhanced business applications, we'll be able to make the connection to our data that our external customers need. Implementing an integrated middleware layer fosters accurate processing and information transfer, lets us integrate disparate stove-piped applications, and makes it possible to retire systems. We'll be expanding customer choice and cutting customer costs, by using the Internet and by operating on a common technology platform that is proven, scalable, and secure. \blacklozenge

We started our modernization effort by establishing a new business model. We aligned our people and resources with our processes, to help us focus on the end results that would yield the most value to our customers.

Using this model has helped us define our business process requirements, spell out

information flows and technical architecture to support our requirements, and set forth a timeline and sequencing plan, all at various levels of detail.

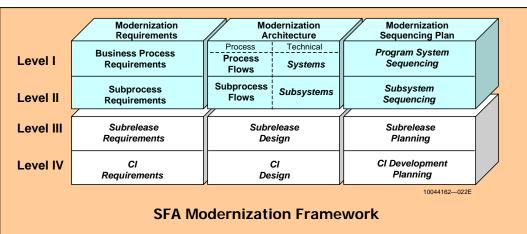
Defining our business requirements led us toward a new vision of our business. This vision helps us to analyze our services from the point of view of our customers-- students,

schools, and financial partners — and to determine whether we are focused on the right business capabilities. The SFA basic business model makes the relationships more clear. We're moving our architecture towards a more integrated enterprise, using middleware technologies.

We organized people internally to focus on our three different customer and partner groups, students, schools, and financial partners, and developed plans keyed to those groups. Our management team reflects this strong customer focus and enables us to build valued relationships with our core customer base.

Additionally, two key strategies work together to get us there. The "up-front" strategy is replacing paper with electrons – using the Web with personalized portals and creating electronic documents. The second strategy is answering your questions consistently and providing multiple methods and access points to enable you to choose how you can interact with us.

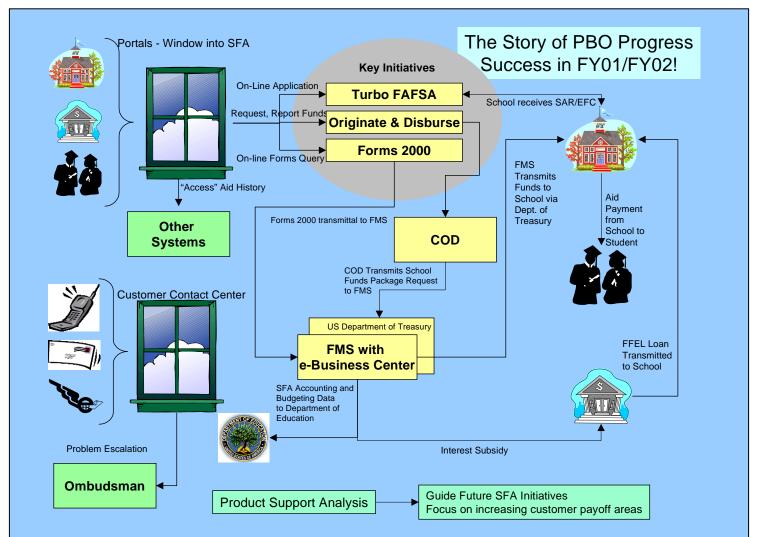
As we move forward through the phases of the SFA Modernization Framework, from requirements definition, to the enabling architecture, and then to the sequence in which we introduce new programs and systems, referring to this Framework helps our organization and our customers understand our path and track our progress toward meeting our goals.



We're changing business processes, human performance, and technology enhancements to transform SFA into a high-performing organization that achieves our goals: increase customer satisfaction, increase employee satisfaction, and reduce unit costs.

We're viewing each of our modernization initiatives in a larger context to better design the integration of our future enterprise.

Technology used in Internet communication by both our FAFSA on the Web application and our Common Origination and Disbursement System benefits both students and schools. The relationships between schools and financial institutions and our new Financial Management System are enhanced by new data management and datamarts.



Telling the Story of PBO Progress...

We've just completed the first year of our modernization effort and we've set the stage for future success. Our task is to create an integrated enterprise that meets our PBO goals of improved customer and employee satisfaction, and reduced unit costs. Part of that task is to modernize key systems and processes to create an enterprise that meets our customers needs. We can view some of these key processes and systems as major pieces of an overall integrated solution.

We're providing key windows into an integrated SFA using web portal technologies. Our students will be able to apply for aid using an enhanced FAFSA on the Web application that is integrated with our internal origination and disbursement processes. Our planned Common Origination and Disbursement system will be fully on-line in 2002 and will provide our schools with the ability to transmit financial aid data using our new common record process. We'll be able to tie our COD process to our new Financial Management System and provide a seamless process to transfer funds to schools and students. We'll also be able to provide real financial controls for our enterprise, supported by the Department of Education's new financial accounting system. We've implemented a case management system using an industry recognized toolset and brought our new Ombudsman system on-line.

We've made a lot of progress over the past year, and with the next phase of modernization underway there's a lot of progress to be made over the next few years. ◆

Making Progress According to Our Plan

We presented our plans in the previously published Blueprints, and we "kept score" for you about our progress in delivering results. We're doing the work we promised. Here are some of the results we've achieved in the past six months

we've achieved in the past six months. 2000 Projects	Status/Progress
Students Channel:	
1. Enhanced Aid	Started Student Portal Requirements
2. Enhanced Aid Application	 FAFSA on the Web release 5.0 is operational in January 2001 – Enhanced user experience and improved reliability. FAFSA on the Web release 6.0 will be operational in January 2002 – Will add new functionality for Schools and SFA and real-time availability of FAFSA results Mailed 12 million personal identification numbers (PINs) so applicants may complete the FAFSA on the web Processed over 20% of applications via the Web
3. Enhanced Loan Servicing	Completed CDS Elimination project on schedule (early November 2000)
4. Enhanced Debt Collections	 Streamlined the Treasury offset process Set up new collection contracts Collected over \$1.26 billion in outstanding debt this year
Schools Channel:	
1. Common Aid Origination and Funds Disbursement	 Completed Phase 2 - COD Solution and Preferred Partner Selection and Creation of Initial COD Business Case and Initial Implementation Plan
2. Web Portal for Schools	Web Portal for Schools – Live in March, 2001
3. CRM Requirements Development - Schools	Completed Phase 1 – Consistent Contact Centers analysis underway
Financial Partners Channel:	
Financial Partners Process Reengineering External Partners Process Reengineering	 Completed Phase 1-Analysis of four core business process areas, development of recommendations, and development of business case. Automated Guaranty Agency payments using Forms 2000 Web
CFO:	applications
1. Financial Management Transformation	 Completed FMS Phase II - October 2000 - Implementation of Oracle Federal Financials accounting software tools. Forms 2000 links are operational
CIO:	
1. Cross-Channel Enabling Technology	Defined Security and Privacy Architecture
2. Enterprise IT Architecture	SFA Intranet is operational
3. IT Methods and Standards	 Defined Systems Development Life Cycle (SDLC) Implemented A130 security policies and procedures Completed SFA Technology Handbook
	(technologyhandbook.sfa.ed.gov)
4. Consolidated Data Center (VDC)	Established and implemented four critical architectures – Internet, Portal, Enterprise Application Integration (EAI), and Data Warehouse – in the VDC
5. Ombudsman	Released OCTS 2.0 in October, 2000
6. Modernization Blueprint	Published Release 2 in April 2000
7. Enterprise Data Dictionary	Defined data elements for all SFA legacy systems to set standards and cut redundant data.
8. Extranet	Released an extranet for software developers to share technology standards, policy, and guidelines.

Turbo FAFSA...

FAFSA On the Web handles larger volumes, adds time-saving features

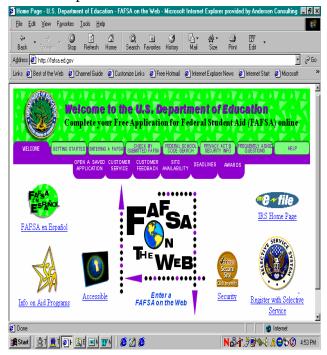
We've seen a thousand-fold increase in the number of applications submitted over the Web since we started the FAFSA on the Web site in 1997. Electronic applications offer many benefits to aid applicants, as well as enabling us to lower our processing costs. With an electronic application, students can get a turnaround response in 4 days instead of 3-4 weeks by filing manually. Fewer corrections are required by students, parents and schools, because the FAFSA on the Web application has built-in error checks.

We will continue to make it easier and more attractive for students to apply for financial aid and more economical for us to process aid applications. It's a win-win solution for both our customers and our enterprise.

We anticipate receiving over two million applications from students all across the country through the FAFSA on the Web site in 2000/2001. Use of the FAFSA site will increase to 3 million or more in 2001/2002 and double in future years. This is good news for Students and SFA!

An applicant can get immediate assistance because online help will always be available. This year we are implementing the suggestion of adding the ability to make in-process saves. Applicants are able to save their work and

return to complete it at a later time. This will further reduce errors and provide applicants and their parents with the ability to apply at their own pace.



The neat thing about on-line FAFSA application is that it will be part of an integrated solution to supporting customers. It's part of the overall aid delivery process to access FAFSA via our Internet-based Portal. We're using state of the art technology to increase our communication performance for students applying for financial aid.

Technology Enablers - Making It Happen...

We're de-tangling our "hairball" of legacy systems, by implementing modularized and integrated architecture pieces that enable us to follow our goal of building a little, testing a little, and fixing a little. FAFSA on the Web is scheduled to be released in multiple phases, allowing us to measure what works, fix what doesn't and implement new features that users want. We're using industry recognized technologies and development tools like Java that are more efficient and scalable. Our goal is to build a scalable architecture enabling the use of electronic signature technology. We're on our way to providing students and parents with the capability to use FAFSA on their own time and to be able to return to their application anytime and from any Internet connection. •

Testing Our Ideas to Gain Your Support...



We invited students who have PINs assigned to visit the site and give us their comments. Of the students responding to the on-site customer satisfaction survey, 92% said they would visit a similar site if it were available. The overall satisfaction rating was 72%.

We completed this demonstration project after we showed that commercial middleware and Web server tools work as intended with our systems and industry standards such as

We'll provide real-time error alerts and correction capability... which helps students apply satisfactorily the first time, and reduces SFA data duplication. By utilizing on-line edits, we've been able to reduce resubmits and on-line exceptions from an average of 8% of all applicants to less than one-half of one percent!

With improved FAFSA on the Web usability, including improved real-time validation of data entries and electronic signature standards and capabilities we'll make it possible for the applicant to apply, sign, and submit on-line!

We have even bigger plans for FAFSA. With plans to integrate with the Social Security Administration, in 2002 we'll develop application processes to enable FAFSA to be even simpler and faster. That will move us another step further to integrated, flexible processes that serve our customers better.

Building on the Present - FAFSA on the Web

- Direct on-line capability for students to apply for financial
- Expand the audience via Spanish language FAFSA
- Provide greater security and access via PIN software tools •

Looking to the Future - Turbo FAFSA I completed my FAFSA on-line and at home in ten minutes! My older sister said it took at least a month to complete her It was so easy, application two years ago I told all my With their new security features, I was completely at ease mitting my personal information about FAFSA! in Spanish!

January 2001 - FAFSA Release (Version 5) Went Live Provides for Spanish

- Language FAFSA
- Allows temporary saves during on-line input
- Increase usability of school code search
- Scalable architecture allows for greater volume

January 2002 - FAFSA Release (Version 6) Goes On-Line

- Increased responsiveness and reliability
- Actual real-time Expected Family Contribution (EFC) calculation
- Auto-save to server
- Integration with states and institutions
- Provide the capability to increase FAFSAs filed electronically by 50%
- Tangible customer satisfaction and cost benefits will be evident as a result of the increased accessibility and technological improvements

SFA - Modernization Blueprint Version 5 021601

Integrating Aid Delivery Systems Around a Streamlined Common Record...

Common Origination and Disbursement (COD) drives towards an integrated origination and disbursement solution option for all schools.

We are reengineering the existing method of delivering aid to students into a common delivery process. With COD, we will be able to provide the over 6,000 colleges and universities that participate in our Title IV Financial Aid programs with a single process for aid origination and disbursement. We will create a system that facilitates close to "real-time" sharing of data across all of our partners, and we will create a platform that supports integrated technical and functional customer service for schools across all programs.

It's about creating an integrated and seamless process that enables our school partners to deliver aid to our students. We recognized the current problem – too many non-integrated systems providing often-conflicting information to our customers. Our partners feel significant pain when they try to see data across these different programs. Current systems require them to log in and log out constantly, oftentimes not providing the ability to retrieve necessary information. The COD initiative is a way for us to deliver simplification and easier access.

We'll keep the current processes for reporting student financial records while designing a new set of common processes across financial aid programs. Implementing common processes will help schools reduce their information systems maintenance, training on multiple SFA systems, and operations. It will also help to reduce the number of errors and time needed

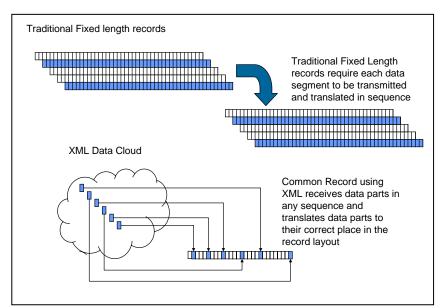
for reconciliation. The COD initiative will begin with a common process for requesting, reporting, and reconciling Pell Grants and Direct Loans. Also, we will provide options to detailed student reporting in the Campus Based System to alleviate some of the burden of FISAP filing.

Common Record Utilizing Middleware Technology Enables Schools to Use Both Current Record Transmission Process or New Common Record Process SCHOOL A Common Record Wrapper Technology Common Record Origination and Disbursement (Pell, Campus-Based, Direct Loans) FISAP Processing

Our new middleware architecture allows for the use of wrapper technology to translate both the common record, developed in XML format, and current records in each legacy system's language and transmits those records in their respective correct formats to the Origination & Disbursement system. This approach enables schools to choose to continue interfacing as they currently do, or take advantage of the new Common Record approach. •

A key component of this effort will be the Common Record. The Common Record develops standards for the transfer of data among financial aid delivery partners. As we begin to test and to release these standards, we will begin the implementation of common

processes. The idea is that a current data record for a particular student is made up of many sequential parts. In today's system, those parts must line up in specific places or the record cannot be read. Using XML technology to build our new common record and our middleware architecture to translate and transfer that record, we remove the need for static or fixed record layouts. The common record accepts each of its parts as a whole and can receive them in any order or sequence. The middleware wrapper translates that record and reads the data in the right sequence.



Our goal is to provide our customers- schools-with access to a single process to request funds and report disbursements. But we'll continue to accept records in the current format to smooth the eventual transition to a fully integrated COD. By creating an integrated system we can simplify the manner in which schools submit financial aid data to SFA, streamline the disbursement process, accurately track and manage our internal auditing processes by providing a link to our new Financial Management System, and begin to provide consistent access and data to our customers. This will include identifying

common edits across programs and eliminating inter-system edits no longer necessary as we improve our underlying systems. Thus, we reduce the number of rejects and students caught up in the process.

The interplay of a common record and a common process is made possible through the use of middleware and our integrated enterprise architecture. The middleware will allow legacy systems to feed data into the integrated architecture where the common record is created. That common record will be fed into

the COD application. Over time, COD will

Technology Enablers – Making It Happen...

Our technology architecture is key to the success of COD. We're creating a middleware "wrapper" that will accept current record layouts from the systems you're familiar with and convert them into a "common record" format, allowing schools to migrate to the COD process as they are ready. It also allows us to build and test COD capabilities – including key interfaces – without impacting your normal operations. And when we've completed the entire COD system, the middleware will enable us to retire old legacy systems and process all records through the new COD system.

We're going to build a Common Record using XML- a common and modern development language which gives us the real benefit of using a recognized "commercial off-the-shelf technology(COTS)" that will allow us to place "tags" in the record to describe content. These tags enable us to create and use records without being constrained by specific record layouts and formats.

We're also modifying an existing commercial product to be the COD technology platform. It gives us the flexibility to receive one record or one file, real-time or batch processing, and enables computer to computer to mailbox processing.

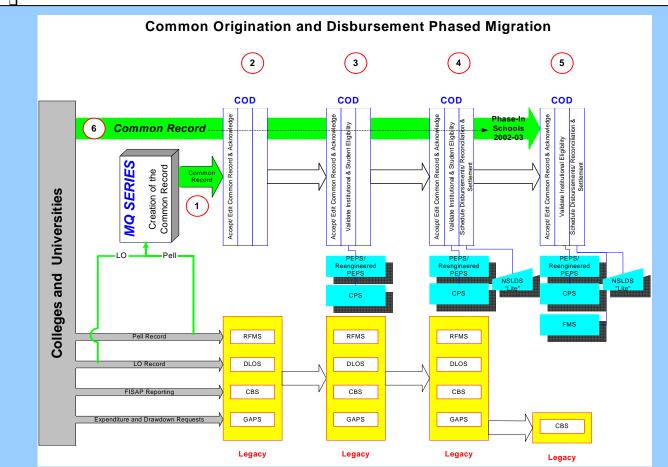
The end result allows us to provide better service to students, help schools reduce their costs in information technology, and reduce the cost and time required for processing financial aid. ◆

house additional functionality as redundant legacy systems are tombstoned. Ultimately schools will be phased into the common process on their own time frame.

We finished the process of developing requirements and are moving into the design and implementation phase of a fully integrated Title IV origination and disbursement process.

Phase I – Assessed the current environment and processes for origination and disbursement and identified options to reengineer the process – Complete!

- Phase II Preferred solution partners will be identified, an implementation plan and a business case for the plan will be developed Complete!
- Phase III Full integration of the preferred solution will take place and deployment strategies will be identified by August 2001.
- Phase IV The initial capabilities of COD will be developed and delivered by February 2002.



Our "build a little, test a little" strategy is to design and build the key components of the Common Origination and Disbursement System incrementally. Through the use of Middleware, we will be able to take existing legacy records and transform them to the common record, enabling us to test the system with live production data without requiring any changes in the way schools send data. This means we can build and test "behind the curtain" to ensure that, by the time schools are communicating directly to us via the common record, we have thoroughly stress tested the system with a wide variety of production data. This will also allow us to have a test environment up for our partners prior to the completion of the system, thereby allowing others to build and test along with us. •

The improvements provided by COD will make the disbursement process more streamlined and better integrated. With a single interface for reporting disbursements, customer satisfaction should increase significantly.

Using the University of Michigan American Consumer Satisfaction Index (ACSI) process, which is used by both private and public organizations to measure customer and employee satisfaction of their services, we're set on achieving an aggressive customer satisfaction goal of 74%, up from our current 63%, by 2002.

transfer of financial data to our partners and customers. We're doing this to streamline school interfaces with SFA, and give all participants the latest data.

In the end, we'll be giving our schools a single process with one integrated point of access instead of the current multitude of logon points, with on-line access and faster exception processing. The present, cumbersome program-centric multiple systems will be replaced by a new student-centric integrated system.

Expected Results

Operating unit costs will be reduced by as much as 19% by 2004. COD will contribute to this overall unit cost reduction. Common data reporting for PELL, Campus Based and Direct Loan programs will occur. There will be fewer modifications over time to increase the efficiency of the system. Less time will be spent by the school partners to manage the systems, creating more time to serve their customers, the students. The ability to submit records will be improved with a variety of options including batch, on-line, and direct one to one and will provide real-time data that can be accessed by trading partners. •



We anticipate that employee satisfaction will be improved, because the COD systems includes reporting improvements that will decrease time required to review and analyze data.

We're moving forward on an aggressive schedule that will provide customers with a world-class origination and disbursement system that delivers a seamless production and

COD Timeline

- Phase III Design & Development August 2001
- October 2001 Fully stress test new COD system and Common Record process.
- Implementation Phase 1 Up to 50 Schools to Utilize Common Record process starting in February, 2002

Financial Management System with E-Business Center ...Building Confidence and Accountability

We're moving in the right direction to strengthen SFA's financial integrity. We've instituted an E-Business Center concept made up of our core financial management system – FMS. We're also moving towards retiring the current accounting pieces of the FFEL system and transferring key functionality to FMS. We're building a data mart to consolidate important financial data and provide greater query capabilities. We're also replatforming our current campus based system to enable web-based FISAP processing. It's all part of creating and operating an E-Business Center and it starts with the core – a new Financial Management System.

FMS – The cornerstone of our future Electronic Business Center

FMS, an Oracle Federal Financial System, manages the flow of all financial information across all of SFA. It will facilitate SFA's transformation by giving our CFO office the ability to report information across programs, consolidate redundant processes, and account for SFA Title IV funds.

In implementing this Financial Management System, the operations of the Office of the Chief Financial Officer at SFA will be focused on the following key areas:

- Funds Management
- Payment Management
- Receipt Management
- General Ledger Management
- Financial Management Reporting
- Cost Management
- Loan Portfolio Management
- Budget Analysis and Development

A consolidated financial management system provides many benefits for SFA and our financial partners. We'll enable our customers to effectively communicate with us by integrating our reporting systems and tools.

CFO to use Phased Approach for FMS Implementation

Thase I – Planning. Validate the SFA FMS
Concept of Operations, develop conceptual
design, develop implementation plan.
Thase II – Proof of Concept
Implementation. Implementation of Oracle
products for the FFEL/Guaranty Agency
Payment program.

Phase III – Incorporate core accounting for each of the remaining Title IV programs (Direct Loan, Campus Based, PELL, Lender Payments and Debt Collection services).

Phase IV – Enhancements. Fully integrated financial software and accounting system ◆

We'll lower overall costs by allowing our 6,000 schools, 4,000 lenders, the states, and 36 guaranty agencies to operate on-line, thereby reducing the need for paper-based transactions. We'll help improve our employees' satisfaction by providing them with the right tools and support to do their jobs. FMS offers a single, world class accounting system that enables financial accountability and clean auditability. It will help to assure our stakeholders that we effectively manage taxpayer resources. It's an integrated system that works with other critical systems including FFEL and COD.

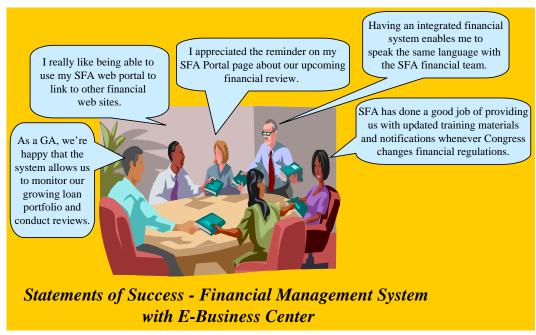
It's all about lowering the cost of doing business while establishing our credibility in the financial markets. This will help us open the doors to school for thousands of students across the country.

Concurrent with FMS Phase III activity we plan to customize, configure and deploy the FMS Phase II application to support accounting for SFA's remaining program and business areas, including Federal Family Education Loan (FFEL) Lender payments, Leveraging Educational Assistance Partnership Program/Special Leveraging Educational Assistance Partnership Program (LEAPP/SLEAPP), Direct Loan (Origination, Servicing and Consolidation), Debt Collection Services, Pell, and Campus Based programs.

With a new Financial Management System, we're moving toward the creation of a financial organization that supports our financial accounting needs. We'll also provide our customers and employees with the confidence and assurance that we will operate in an increasingly fiscally responsible manner.

Simplifying FFEL...consolidation and integration...doing the right things better

We're retiring a portion of the FFEL system and incorporating needed functionality into our new Financial Management System, thus augmenting the existing collection systems. We'll be able to increase efficiency by reducing the manual effort of maintaining duplicate data and eliminate redundant systems. We'll also set the stage for a full retirement of the FFEL system in the near future and enable the continuation of support services through our new FMS and new debt collection capability. The huge cost savings get recycled into providing better and more efficient services for all our customers. •



Financial Partners Data Mart – Direct Access to Key Financial Data

We're going to consolidate key financial data into our data mart and provide the right tools for you to access that data. By creating an integrated data mart utilizing our enterprise data warehouse strategy, we prepare ourselves for future data consolidation needs. This type of data consolidation change won't happen overnight.

In Release 1, we'll establish the first phase of the data mart, focusing on historical core partner information,

by transferring key financial data from the FFEL system into our data mart. This release gives our customers and employees improved access to basic guaranty agency (GA) and lender information. SFA employees can utilize historical invoices for trending and benchmarking. Additionally, customers and

the SFA Financial Partners Business Channel receive improved risk, customer relationship, compliance, and portfolio management functionality. Our customers and employees will also get decision support tools, like Microstrategy, that will provide direct analysis and reporting capabilities.

customers and employees... which allows earlier warnings of potential issues and problems with a loan portfolio. We'll also be able to conduct trending, benchmarking, and "what-if" scenarios. And finally, customers and employees get improved access to GA and Lender information.

In Release 2, we enhance the data mart with

summarized loan level information and provide our customers and our employees with more cost effective reviews and audits as a result of consolidated information. We'll move summarized data from NSLDS to the Data Mart and provide the means to identify areas where inconsistencies exist between invoices and loan level information. Our employees get improved understanding of loans by type and status. And, with enhanced query capabilities we'll be able to better understand the relationships between our GAs, Lenders, Loan Servicers, Schools, and the loan portfolios.

In Release 3, we move towards a truly integrated data mart containing current core partner information with source data from FMS and the PEPS system. At this stage we'll be able to provide consistent answers for our

<u>Financial Management System with E-Business Center Timeline:</u>

FMS

- April, 2001 FMS Phase III: Core Functionality Released
- July, 2001 FMS Phase III Release 2
- August, 2001 FMS Phase III Release 3
- October, 2001 Begin Phase IV

FFEL Retirement

 December, 2001 - Identification of accounting functionality targeted for retirement and incorporation into FMS and Data Mart

Campus Based System's Replatform

 November, 2001 - Modernization of Campus Based System to enable web-based FISAP processing and alternative FISAP submission process for schools utilizing EDExpress

Financial Partners Data Mart

- May, 2001: Release 1 Historical Core Partner Information Transferred from FFEL
- August, 2001: Release 2 Summarized Loan Level Information Transferred from NSLDS
- November, 2001: Release 3 Current Core Partner Information Transferred from FMS and PEPS

Re-engineering Campus Based Systems - modernizing our technology and improving service

A redesigned Campus Based System will continue to calculate and allocate campus-based funds based on the current Congressional methodology. More importantly, it will integrate with the new FMS to ensure that schools have timely access to their campus-based authorizations. Through this re-platforming, we'll provide significant increases in functionality for our users while reducing our annual maintenance costs. In addition, it will give our staff increased access to the right tools, data and analysis capabilities to support schools with their annual FISAP filing. The system will enable schools to submit the FISAP on-line and check the status on-line and in real-time. In

Legacy Campus
Based System: By
re-platforming our
legacy campus based
system from its current
state onto a webenabled, relational
database platform, we
enable greater
functionality for our
users and tombstone a
stove-piped legacy
system. •

NSLDS Modernization - Providing Access to Consolidated Data...

NSLDS enhancements make it easier for SFA to provide data to its users without the hassle of system constraints.

NSLDS currently centralizes all Title IV student aid data obtained from schools, guaranty agencies, and many internal SFA systems. We've recognized over the past few years that the current NSLDS costs of approximately \$20 million annually are too high while the system struggles to deliver timely and reliable information to internal and external users. That's why we are committed to modernizing NSLDS carefully and thoughtfully over the next few years using advances in data warehouse technology and your direct feedback.

The first stage of our modernization effort in FY01 was to institute a "Mad Dog" team to find ways to improve customer service delivery and the processes and techniques around NSLDS without significant technology change. They are seeking customer input and their own insights into how to make NSLDS more responsive, operate faster, incorporate better data and be more cost effective.

The second stage will begin after COD is in production – in February 2002. We have sequenced these efforts in this manner to avoid the risk of changing these two key core processes and systems at the same time. During this stage, we will determine how to integrate data from NSLDS and other sources, using data store technology. Data stores are software that aggregate raw data from several sources or time periods, and package it into a variety of user-definable assortments. The packaged data becomes information useful to schools, financial partners, and SFA itself in analyzing program performance and making better business decisions. We will continue to use an open, collaborative process to redesign the ways NSLDS gets and provides data. We anticipate an improved NSLDS system will

increase the speed and flexibility of reporting. Data will be more accurate and employees can provide a better service to our customers. We anticipate that report generation labor costs will be decreased by 25% and operating costs will be reduced by \$4 to \$7 million anually. A re-engineered NSLDS will allow access to the best sources for real time updates of aid status.

The NSLDS modernization effort in FY01 will begin to provide immediate and long-term enhancements that will:

- Improve the responsiveness of NSLDS
- Improve the quality of NSLDS' data

By the end of 2001, our customers should already see some changes. At that time, we'll report back with an outline of significant immediate and short-term changes to NSLDS. We'll focus our efforts on the responsiveness of the system, the quality of data and the benefits of new business technologies.

<u>Timeline</u>

February 2001:

Review NSLDS Mad Dog team's report and implement recommendations

FY01 and Beyond:

Complete modernized data warehouse system

Schools Portal - One Stop for SFA Help

Creating an Integrated SFA Portal Strategy to Provide Unique Views for All of Our Business Channels and Customers...

We are developing an enterprise portal strategy that utilizes a common architecture and enables each of our business channels to create channel specific and unique views. These views give the *impression* of separate portals providing information on each business channel and their unique processes, while operating on a single integrated architecture.

Our Schools Portal View is the first component

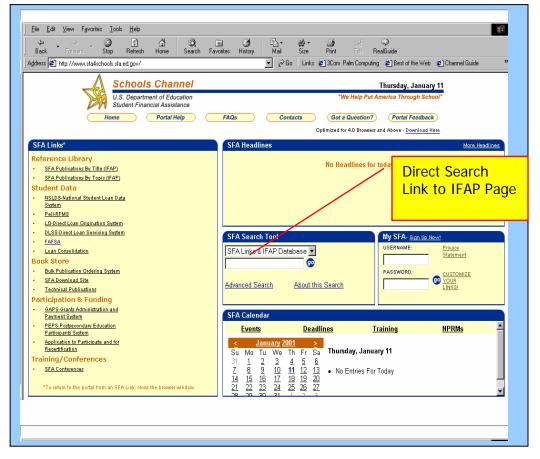
of our enterprise portal. In the first release, planned for Spring 2001, we will provide Schools Channel customers with integrated, timely, and user-friendly access to existing information, databases, and other SFA resources.

The Web Portal will pull data from a variety of data sources and present the information in a consolidated fashion. By having key information posted and accessible from an integrated Web Portal, we anticipate a reduction in calls to the call center and reduced complaint calls seeking clarification on processes.

Additionally, customers will be able to use portals at their desktop and to personalize portals to meet their individual needs. Overall, the portal promotes and facilitates

more efficient and effective collaboration and partnering between SFA customers and SFA employees.

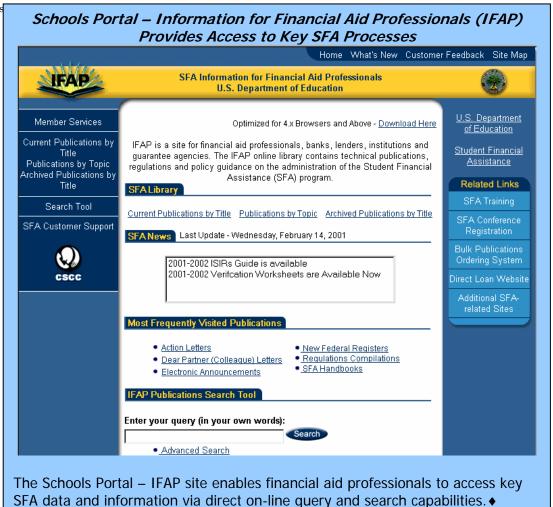
We'll provide the capability for our schools to conduct queries and searches of our IFAP information by simply logging onto our Portal. This capability provides our customers with a simple and recognized means to have access to large amounts of valuable and useful data right at their fingertips. In addition, we have significantly re-platformed IFAP thereby enhancing its search capabilities by implementing a more powerful search engine.

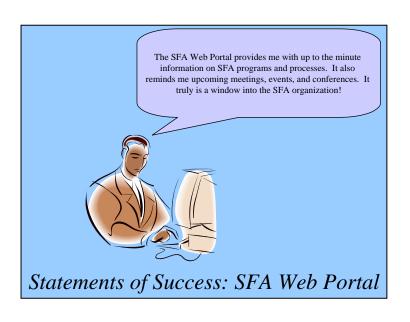


In the next School Portal release, we intend to resolve the single logon challenge to allow users to logon once and use their single logon profile to access all the systems they require to complete their jobs.

Personal Copy - Not For Dis

The personalized Web portal views, combined with single logon, will provide our customers with unique windows into our organization without requiring customers to log onto multiple applications to access needed information.





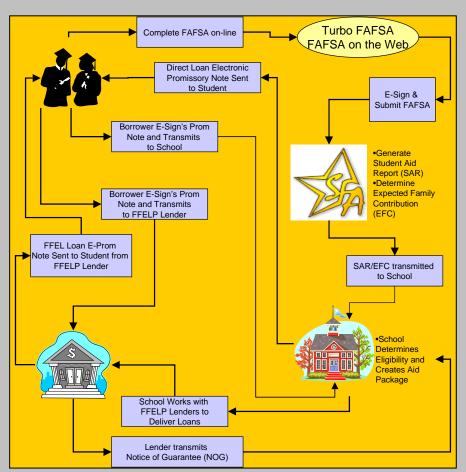
Schools Portal Timeline

- Spring 2001 Schools Portal Release
- Spring 2001 Enterprise Portal Strategy Released
- Future Single Logon Capabilities Released

E-Signature and Promissory Note – Authorizing in a Digital Age...

One of the key points the E-Sign Law (U.S. Electronic Signature in Global and National Commerce (2000)) mandates that federal agencies offer an electronic version of all of their documents and the capability to electronically sign federal documents. This law coincides with one of our primary goals to turn paper into electrons. We're on our way to providing e-signature capabilities throughout a number of our services.

We've already implemented an electronic signature capability into our FAFSA on the Web application. By tying that capability to our successful electronic PIN functionality, we're enabling students and parents to complete their FAFSA on-line, e-sign it with their PIN and submit it to SFA. But that's just the first piece of our overall integrated service.



Electronic Signature and Promissory Note Enables On-Line Processing

Our goal is to create an integrated and seamless process from the point when a borrower first applies for financial aid to when they get their promissory note and can pay their tuition. With electronic signature capabilities scheduled to be in place by July 1, 2001, we've set the stage to build that integrated solution.

E-signature is already in place on our FAFSA on the Web site, allowing a student borrower to submit their aid application to SFA. Here we create the student's aid report (SAR) and determine their expected family contribution (EFC). We'll send those reports electronically or manually to the selected schools that will then determine aid eligibility and create the borrower's aid package.

For Direct Loans, the schools will be able to transmit an electronic promissory note the student can sign using our e-signature capabilities and send back to the school. Other lenders, selected by the students, will be able to use our electronic signature and authentication system of their own choosing based on our guidelines and standards.

In summary, the student will be able to electronically sign the e-promissory note sent from the bank or school to the borrower. This seamless and integrated process is one step in many that we are taking to provide choices for our customers. Choices that utilize today's modern technology, and choices that help us all be successful.◆

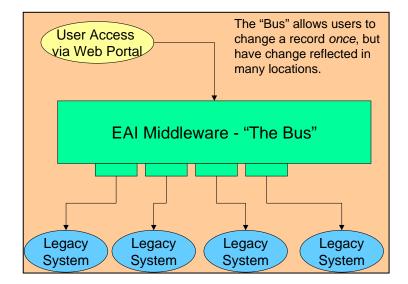
Consistent Answers for our Customers... Providing the Right Answers All the Time

Customer Interaction Centers – "One-call does it all" service!

We all know how frustrating it can be to receive conflicting information from a customer service agency. That's why we're making an effort to change the way we provide answers to you, our customers. We're moving toward more consistent service across all major customer interaction centers and through all media -Internet, automated voice response systems, and Customer Service Representative (CSR), and paper based submissions

We'll use middleware to access multiple sources of data, and thereby ensure that any single point of contact serving SFA customers (including students, schools, and lender/guaranty agencies) gets the same consistent answer.

We'll also use our middleware technology to ensure that data entered in one location updates all systems. This provides SFA employees and customers with the right information at all times.



This initiative will produce the following benefits:

- Consistent answers
- Ability to get your answers quickly through self service and fewer points of contact
- Increased cost savings

We will address these opportunities through an Enterprise-wide deployment of consistent telephone technologies and customer contact tools at all Customer Interaction Centers. We will also establish an 800 number to provide one point of contact for each customer type (Schools, Financial Partners, Students).

Last but not least, we will create more consistent processes, metrics, training and performance indicators across all centers. This will enable us to identify and recognize enhancements suggested by our customers and implement those enhancements immediately.



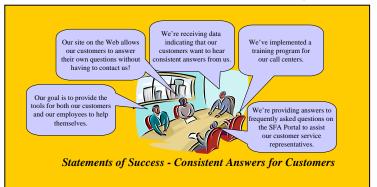
Direct Loan e-Servicing - Reducing Costs and Improving Service

Our "e-Servicing" project complements our other consistent answers efforts. We're looking at integrating proven commercial products and industry best practices to provide a scalable solution capable of handling our growing portfolio. With Direct Loan e-Servicing we're planning to provide Internet bill presentment and payment, On-Line Correspondence, and an enhanced Customer Management System. e-Servicing will enhance customer satisfaction, reduce operating cost related to Direct Loans, and provide a foundation for an expandable electronic customer relationship management approach.

It's all about delivering information to our customers using widely available tools and upcoming technologies. We're promoting customer self-service. That means providing customers 24/7 access, across the Internet or by voice technologies from anywhere, to the answers. With Direct Loan e-Servicing, we'll save students time and in turn save SFA millions of dollars in associated costs. With

Internet billing, we're providing customers with flexible payment choices, expediting the receipt of payments, and reducing the costs associated with writing and paying bills. Students will be able to choose when to pay and indicate the desired bank account. We help eliminate the cost of mailing paper bills and handling checks. We also help eliminate delays and increase the accuracy of borrower's payments by providing electronic funds transfer capabilities.

SFA has the potential to realize over \$60 million in savings over the next 5 years with the successful implementation of eServicing.



Ombudsman – Helping People Get Consistent Answers

We recognize the current issues. There are just too many problems with the way we provide customer service. With multiple access points and inconsistent data, in some cases we're failing to provide you with the answers you need. But, we've recognized that problem and we're taking the right steps to fix them.

Our new case management tracking system, implemented and brought on-line on October 31, 2000, utilizes a case management solution based on Siebel, an industry-recognized customer relationship management toolset. This application enables us to categorize case data thoroughly for reporting purposes, integrate with SFA databases and other systems, provide work flow automation and scripting to aid Specialists in handling cases, and provides extensive management reporting capabilities. To date, we've handled over 1600 calls using our new Ombudsman system. Our Intake Specialists at two call centers nationwide have the tools and the resources to answer most immediate questions. Those questions that need further investigation are logged into our Case Management System and escalated to our Ombudsman Specialists for resolution. These tools have helped us reduce caller hand-offs by providing our service representatives with access to consolidated data.

We've changed our training and operations plans, re-instilling a sense of pride and commitment within our ranks. We're putting in place industry-recognized call-center technology that helps us help you faster, cheaper, and more effectively. And most importantly, we're creating a culture that takes customer service seriously. That's the only way we're going to get to our goal of providing "one call does it all" service. •

Human Resources Support Systems - Empowering our Employees...

As a high-performing PBO, we need to support our employees so they can better support our customers. We're making the effort to create Human Resources practices and systems that will help us support our employees as they manage their careers and provide them with the skills and tools they need.

We will use a phased approach in using existing and new technologies to provide integrated human resources capabilities. Capabilities such as Career Development Tracking and Training which will enable employees to better manage their careers, Performance Management which will permit employees to receive performance feedback on an ongoing basis, and Online Recruiting and Placement which will allow us to have access to top-quality employees.

We will implement a web-based tool that gives our employees easy access to these HR capabilities, anytime and anywhere. Streamlining and automating many of the HR transactional processes will free up our employees' time to offer their expertise to the

TIMELINE:

- April, 2001 Perform.com performance development process facilitated by webbased tools - accessible anytime and anywhere!
- June, 2001 Streamlined business processes for Human Resources and deployment planning released.
- August, 2001 Capability for web-based career

customers. As a result, our customers will receive the answers they need, promptly and correctly.

Through the use of these new systems and processes, we'll also be able to inspire a more

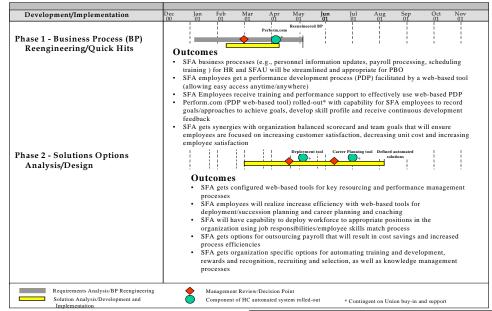
creative and challenging workplace.

Our goals have always been clear. Our employees will be more motivated and committed to the future of SFA. Our customers will be better

Our new HR organization will provide you all with Wow! The system really It's great that SFA rewards direct access to the tools provides me with direct me based on my performance. and systems to make you access to the training that I like being recognized for successful. I need to do my job. the work that I do. I like the fact that I can With the new HR department receive and provide direct we have the tools and the performance feedback to both my team members and my systems to support our customers and our employees supervisor. Statements of Success - Human Resources Support Systems

Modernizing our HR processes will provide us with a more functional, efficient, and cost-effective organization. And the great news is that HR will be in line with our overall PBO goals.

served and will receive quality advice. Our unit costs will be significantly reduced due to our "paper-less" focus. Overall, we'll be on our way to creating a forward looking organization, with dedicated employees, and satisfied customers.

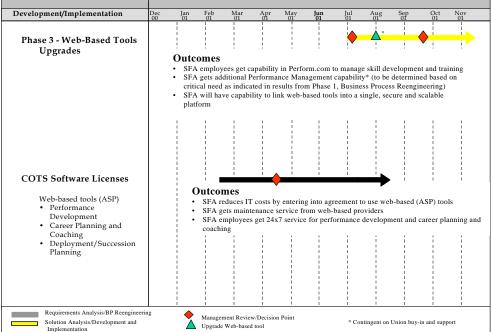


Providing a Strategic Outlook towards a new Human Resources environment.

Phase 1 & 2 lay the foundation for a new SFA Human Resources organization. With business process reengineering, software analysis and design, and utilization of application service provider-based industry recognized tools, human resources modernization is set in motion. ◆

Providing a Strategic Outlook towards a new Human Resources environment.

Phase 3 highlights the use of commercially accepted webbased upgrades. The capabilities provided set the stage for the implementation of processes and tools that will enable SFA to become a high-performing organization. ◆



Technology Enablers – Making It Happen...

We're going to create this system in a modularized fashion following our technical approach of "building a little, testing a little, fixing a little." We've identified specific functional modules that can be pieced together to meet our needs. Application service providers like Perform.com and others can provide us with the technology tools that we need over the Internet. This helps us reduce our investment costs by not having to create a large, custom-built piece of software. It makes sense fiscally and it makes sense for our employees.

We'll tie all this together using the common enterprise architecture. We'll also be able to take advantage of the standardized SFA portal strategy and give our employees access to the HR tools they need via our SFA Intranet. All of this information technology – software and application service providers – has the ability to provide us with more functionality than we currently call for, but it enables us to develop an evolutionary map to creating a high-performing human resources organization.◆

Product Support Analysis – Analyzing your Feedback and Enabling the Right Tools for the Right People...

We're providing more services to customers, and we want to be sure they're the "right" services. This means that we'll continuously analyze our programs and processes ... take measure of what works and what doesn't. Our goal is to see what programs and processes customers like, and build upon them. We'll see what programs and processes you *don't* like, and find ways to either make them work or discontinue them.

We know we're not perfect, but we also know that customer feedback helps us make SFA a better and smarter organization.

We're going to annually review our progress in a variety of areas. Where there is room for improvement, we're going to take action. If there are processes that customers say we need to fix, then we're going to take action and fix those problems. We're also going to build on our current success stories.

We're driven to provide the following capabilities:

- Ability to provide regulatory answers and program interpretations through our school portal and CSR's
- Ability to analyze our customer's needs and program performance to identify trends of success as well as areas for improvement

We've instituted customer service satisfaction surveys and employee satisfaction surveys that will provide us with *real* information about our business and services. These responses give us the proof we need to understand what we're doing right and what works. These responses also give us a clear understanding of what areas we need to improve.

We'll also use these analytic tools to benchmark where we stand in relation to other government agencies and the private sector. We'll continue to measure customer satisfaction using the University of Michigan ACSI standards ... and to use the Gallup Q12 measurements of employee satisfaction.

SFA Ranked Most Improved in First Survey of Federal Government Service!

- Agency achieves overall score of 73 nearly as high as private sector financial service companies.
- Goal almost achieved 2 years ahead of schedule

The Washington Post - December 22, 2000

It's all about measuring our progress and using customer input to determine what works and what doesn't. It's one of the ways that we want to analyze our current offerings so that we can determine what customers want to see from a modernized SFA. We're making everyone in this process accountable.

With accurate feedback we can seek to simplify our application forms, improve the way we respond to customer questions, simplify our data submission processes, and make sure that the services we provide are useful and easy to access and understand.

We're moving in the right direction towards making SFA a high-performing organization. With continued feedback we can better align our business processes and build product support teams to fulfill those goals. Continued participation and feedback will enable us to move closer to our goal.

Getting Technical-Moving From Concepts to Practices

EAI Bus Comes to Life with Product Selections

We're integrating independent systems stovepipes into a cohesive system that works together with a set of products that make our modernization concept spring to life. We call it the EAI bus...it's middleware in action.

EAI stands for Enterprise Application Integration. It means a set of software that can do many different technical things and make them look easy.

For starters, Enterprise Application Integration can transfer information between applications (such as PEPS, Campus-Based Systems and NSLDS, for example.) The EAI software uses a set of data management rules, which we are defining in a data encyclopedia about all the data in all our systems. EAI uses the data management rules to take the data from one system, change it so the next system can read it, and send it on to the next system as a message. This helps reconcile the data later because the EAI software makes sure this

message is received correctly, and only one time. No more double counting means less reconciliation work.

EAI software is powerful stuff. The IBM WebSphere family of products we're using – MQSeries – includes an "integrator" that lets us start with a message (data) from one system, add some data from a second or third system, and then deliver the "whole enchilada" to a final system destination. For customers, this means we can deliver information fast and accurately.

We can do even more. Another part of the MQSeries is a "workflow manager." We define data flows and process functions in a standard model. The systems don't have to link to each other any more. They feed data to the "workflow manager" software, which sends the data to the next work station for processing. We can modify processes without changing the underlying systems that do the work. This means we can improve one module of production without having to change other modules...and we don't have to ask customers to make changes either.

Providing Privacy and Securing Security...

We are designing, building and operating systems that reflect one of our most important core values – being worthy of trust. Being worthy of trust means our systems are there when our customers and partners need them ... our information is accurate ... confidential data is kept confidential. Being worthy of trust also means we require all our trading partners to live up to our high standards of data security and consumer privacy.

We use CIA to protect our customers' and our partners' data. No, not the Central Intelligence Agency. The initials stand for:

- Confidentiality
- Integrity
- Availability

Confidentiality means keeping private data private. We are increasing our electronic service over the Internet, but we use encryption to make sure student transactions are not intercepted. We even hire professional electronic "burglars" to try to hack their way into our systems every three months. They haven't got into the data, ever.

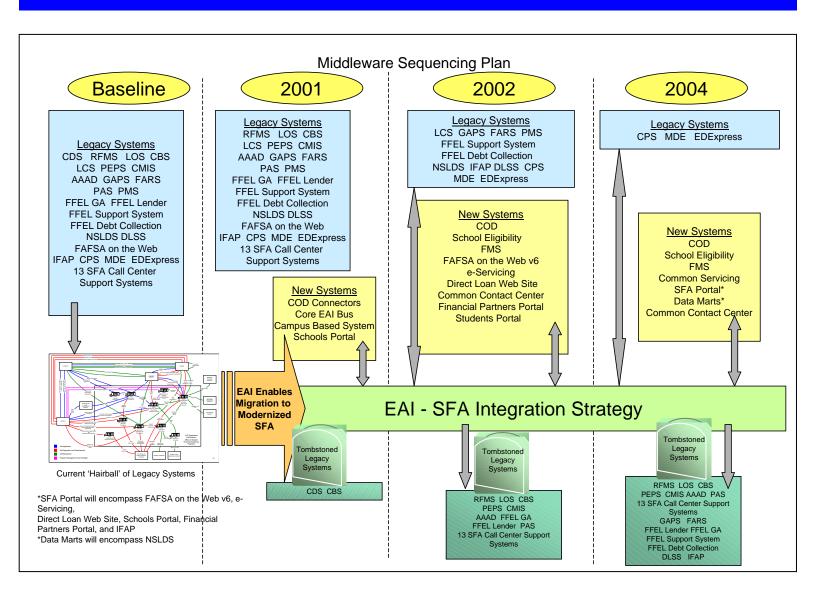
Integrity means making sure information is not changed or corrupted. We use extensive testing to make sure our systems work properly before we turn them on. And we use data edits to make sure we catch mistakes.

Availability means making sure systems are operating whenever they are needed. We run almost all our systems at a world-class data center that is almost impervious to natural disasters. But, just in case it's not totally impervious, we back up all our data regularly and move it to a separate facility (in another state). And we make sure we can use that backed-up data in an emergency by testing our "continuity of operations" plans by restoring a world-class data system from backed-up data, as if a disaster had wiped out our regular world-class data center.

It means that SFA is moving legacy systems onto the EAI bus – that combination of architecture, software and hardware that makes middleware's promises a reality. Below is a vivid illustration of that reality.

We're putting our legacy systems "on the bus." The 30 year accumulated hairball is migrating into our new architecture, and our new middleware is using the legacy data in new, better ways. By end of FY 2002 we'll have fewer old systems running and more new systems, all of them "on the bus." A number of legacy systems will be put under a tombstone, gone for the better. By the end of FY 2004 we'll have transformed our operations even further.

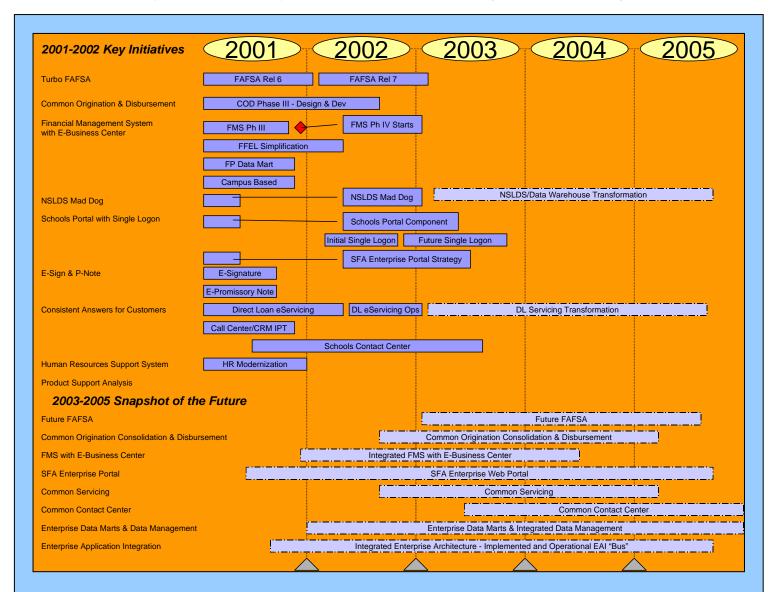
As we promised, we're making tangible progress, and we're putting dates onto the targets. We're collaborating with our customers and partners to make sure no one gets left behind. One way or another, we'll make sure everyone "gets on the bus." ◆



Charting a Pathway to Progress...

Modernization Sequencing Plan Helps Track the Story of PBO Progress

We've organized our projects and tied them to our PBO Key Initiatives. Using the following charts, readers can track the sequence of our efforts and understand our two-year plan. But we're not done yet. We've also projected some of our modernization efforts into the future years. While these future initiatives are not as specific as our current projects, they do allow you to recognize some basic structures that enable us to get to our future target state.



2001-2005 Integrated Sequencing Plan Timeline

This snapshot, taken from our overall Integrated Sequencing Plan, focuses attention on our PBO Key Initiatives for 2001-2002. It also demonstrates our thinking on future modernization initiatives as we progress into the future. There's a lot going on during these two years with even more to come. Our full Integrated Sequencing Plan provides a more complete picture of Modernization initiatives and can be found on our website at http://sfablueprint.ed.gov.

Future FAFSA is a continuing program to enhance the convenience and utility of the application for student assistance process. As we learn more from current successes, and build on suggestions from the community, we'll add features to FAFSA.

Common Origination and Disbursement will similarly be enhanced with new features and convenience, built upon our own "lessons learned" and on community suggestions.

Integrating FMS (financial management system) with an E-Business Center is a long-term program of bringing data, information and services between SFA and the community into greater value as a result of a continued collaboration.

The SFA Enterprise Web Portal is a program of continued expansion of Internet communication and display technology offered to the education community and students. As available commercial technology develops and changes, we'll adapt it to serve our customers better.

Common Servicing is our view that we can work with the community to make it easier for students to handle their student loans and grants, and for loan holders to work collaboratively to achieve cross-enterprise economies of process and scale.

Common Contact Center is our vision that current and near-future developments in computer and communications technology could let us collaborate more effectively with call centers in many different education community entities.

Enterprise Data Marts and Integrated Data Management refers to a continuing SFA plan of improved data utilization. Data marts present current and historical data for customers to use in their own strategic planning and operating management. Integrated data management refers to the goal of using data in consistent ways across independent enterprises.

Integrated Enterprise Architecture refers to SFA's continued development and use of commercially proven application and data integration technology.

In all these cases, we'll develop and deploy new features and services in concert with advances in commercial technology. We aren't going to freeze our enterprise processes and tools, because new technology gives us new opportunities to work with our business partners and collaboratively to better serve our customers.

Modernization Sequencing Plan - Working Towards the Future Target State

There's a lot going on as we move towards a modernized SFA. We're succeeding by moving one step at a time. We're focused on our Key Initiatives this year and next and as we move forward into the future, we'll take the next step and focus on additional priorities. While these new priorities aren't as completely defined as our current Key Initiatives, they illustrate our vision for the future of our enterprise and the path we're on to achieving that vision. These initiatives aren't set in stone. In fact, we look forward to working with our customers and employees to make sure that we're focusing our efforts on the right initiatives while building on the progress made during our first three years of SFA Modernization. •

Charting a Pathway to Future Progress

Target State Modernization Initiatives 2003-2005 - Snapshot of our Future Transformation

Future FAFSA

- P Enhanced scalability to enable over 6 million on-line applications
- Architecture to support 50% increase in usage
- P New functionality for Schools and SFA to foster data accuracy, easy integration, and reduced administrative costs
- P Real-time availability of FAFSA results for an easier, quicker, and more intuitive and complete FAFSA experience
- ₱ Unified user experience at Federal, State and Institutional levels enabling quicker problem resolution
 and improved customer service

Common Origination Consolidation & Disbursement

- PSingle integrated system providing origination, disbursement and consolidation services.
- Enables schools to support complete aid lifecycle for students.

FMS with E-Business Center

© Complete transformation of SFA financial processes and systems enabling credibility, improved customer service, improved employee satisfaction, and lower unit costs

SFA Enterprise Portal

- Web-based portal providing access for all customers and employees to key SFA data, processes, and personnel
- Enables easier, quicker, consistent and accurate customer service

Common Servicing

₱ Integrated loan servicing systems and processes enabling faster service, lower administrative costs, and web-enabled servicing

Common Contact Centers

- Integrated customer and employee service processes and systems.
- F "One call does it all" service.

Enterprise Data Marts & Data Management

P Enterprise data storage and access tools provide improved customer service and integrated data management

Enterprise Application Integration Architecture

- P Enhanced middleware enabling faster system processing and integrated data transfer
- Scalable architecture provides for easy integration of future enhancements

Laying the Foundation to the Future...

We've come a long way in the past year, but we're not finished yet. There's still a lot of work to be done before we can claim victory in our efforts to modernize SFA. But we can celebrate our current successes while we look forward to the future. We have learned a lot from the first stage of the Financial Management System implementation, the middleware implementation, our electronic forms for financial partners, our first portal, the first use of a customer tracking system and many other efforts this past year.

Our goals for the future are to continue the transformation of SFA into a high performance organization. Part of that means continuing to transform ourselves into an organization that is recognized as an innovator in Government. Just recently, we were rated as one of the most improved Federal Agencies in a recent customer satisfaction survey. In fact, our overall score of 73 was near the top of some private financial services companies. But we're not going to rest on these laurels.

We're continuing to work towards our "Target State" – the enterprise of the future. As we move towards FY03, we will continue to focus on those programs that will help us be more successful with our customers. We will perform continuous checkpoints to ensure that

each of our efforts and initiatives is sufficiently aligned with our vision and helps us to create the high-performing organization of the future.

It's a promise to our customers and employees that drives our modernization effort. We've outlined that effort as an integrated plan. We're adopting and transforming critical tools, processes, and systems to provide our customers with the service they need and demand. Our work to consolidate our data, reduce redundant touch points, and improve our employee training are powered by our promise give customers fast, consistent answers.

We want our customers to find that SFA is an enterprise that is easy to do business with, an enterprise that is pledged to exceeding their expectations, and an enterprise that will continue to evolve and improve.

We've only just started and the results are being recognized within both the public and private sectors. We've taken the spirit of the performance based organization and begun the transformation to turn that spirit into reality.

We're helping put America through school and that's a challenge we take seriously.



"We Help Put America Through School"



Appendix A - Information Technology Glossary¹

application 1) The use of a technology, system, or product. 2) A shorter form of application program. An application program is a program designed to perform a specific business function directly for the user or, in some cases, for another application program. Examples of applications include word processors, database programs, Web browsers, development tools, drawing, paint, and image editing programs, and communication programs.

application program interface (API) The specific method prescribed by a computer operating system or by another application program by which a programmer writing an application program can make requests of the operating system or another application.

application server An application server is a server program in a computer in a distributed network that provides the business logic for an application program. In many uses, the application server combines or works with a Web (Hypertext Transfer Protocol) server and is called a Web application server.

application service provider (ASP) An online outsourcing or hosting service for software applications, typically for large businesses with hundreds of users or more. ASP users "rent" instead of buy applications, such as many back-office and e-Commerce applications.

architecture The manner in which the components of a computer or computer system are organized and integrated.

B2B (business-to-business) The exchange of products, services, or information between businesses rather than between businesses and consumers. Also known as e-biz.

B2G (business-to-government) The exchange of products, services, or information between businesses and the government. Also G2B.

business process A series of actions or operations conducing to an end; in information technology the combination of manual and computer operations to produce a desired result. In business, executing an established usually routine set of procedures such as "process an insurance claim."

business requirement 1) a process or function that is necessary to fulfill the mission of an organization or comply with law or regulation, 2) a specification for software design or development based on a business rather than technical need.

chief information officer (CIO) The title is usually given to the person responsible for the computer systems, but it has come to encompass a broad range of duties, including the setting of strategic direction. A CIO is responsible for selecting, implementing, and operating information technologies to achieve its business goals.

chief operating officer (COO) The title given to the person responsible for the management and leadership of the enterprise or organization. A COO is responsible for the entire organization, its mission and vision, customers, and employees.

client server A computing system that splits the workload between desktop workstations and one or more larger computers joined on a network.

¹ Many of these definitions were adapted from Denis Howe's "The Free On-line Dictionary of Computing " at wombat.doc.ic.ac.uk and TechTarget.com's IT-specific encyclopedia at www.whatis.com, Merriam-Webster's "Collegiate Dictionary," and the Concise Oxford Dictionary of Current English. The definitions were adapted as the terms are used at the Department of Education's Office of Student Financial Assistance.

commercial "**off-the-shelf**" **(COTS)** – A software product that is generally available for purchase or license. Often refers to purchased or licensed software as contrasted to software that is developed specifically for a single customer's use.

customer relationship management (CRM) A business process that uses technology as a tool through which organizations can form relationships with their customers. CRM is an important component of the new e-Business initiative. CRM includes three areas: people, process, and technology.

data mart A repository of data gathered from operational data and other sources designed to serve a particular community of knowledge workers. A data mart is designed for analysis, content, presentation, and ease-of-use familiar to the community. May be part of a data warehouse. See also data mining and data warehouse.

data mining The use of sophisticated search engines that use statistical algorithms to discover patterns and correlations in data. It's used as a way to find knowledge buried in the vast mountain of information either on the Web or in a companies own files.

data processing In information technology, the operation of a computer algorithm or program as it is applied to data to produce a desired result. Used more broadly, it includes all of the processing of data and the associated operations.

data warehouse A central repository for all or significant parts of the data that an enterprise's various business systems collect. Typically, a data warehouse is housed on an enterprise mainframe server. Data from various online transaction processing (online transaction processing) applications and other sources is selectively extracted and organized on the data warehouse database for use by analytical applications and user queries.

digital certificate A unique series of data, issued by a certification authority (CA), that establishes the identity of someone doing business electronically. The certificate contains name, a serial number, expiration dates, a copy of the certificate holder's <u>public key</u> (used for <u>encryption</u> messages and <u>digital signature</u>), and the digital signature of the certificate-issuing authority so that a recipient can verify that the certificate is real. Digital certificates can be kept in registries so that <u>authentication</u> users can look up other users' public keys.

digital signature An electronic rather than a written signature used to authenticate the identity of the sender of a message or of the signer of a document. It can also be used to ensure that the original content of the message or document that has been conveyed is unchanged.

e-business (electronic business) Derived from such terms as "e-mail" and "e-Commerce," the conduct of business on the Internet. This includes not only buying and selling but also servicing customers and collaborating with business partners.

e-Citizen Citizen who use government services offered on the Web.

e-Commerce (EC) The buying and selling of goods and services on the Internet, especially the World Wide Web. e-Commerce and e-business are often used interchangeably.

e-document Broadly, any document in electronic form. This can be a file that can be printed or transformed into a visual representation, such as a word processing file. It can also refer to an image of the document such as a facsimile document. It may also refer to a document, such as an Adobe Acrobat document, that contains both the image of the original document and the text of the document. In e-Commerce, it refers to any document than can be retrieved and displayed or printed via a network.

e-gov Refers to delivery government services through information technology. Also electronic government.

electronic data interchange The exchange of data, in a standardized form, between the computing systems of two different companies. Historically this has been an exchange of files with a batch of transactions.

enterprise application integration (EAI) Plans, methods, and tools aimed at modernizing, consolidating, and coordinating the computer application in an enterprise. Typically, an enterprise has existing "legacy application" applications and database and wants to continue to use them while adding or migrating to a new set of

applications that exploit the Internet, e-Commerce, extranet, and other new technologies. EAI may involve seeing how existing applications fit into a modernization plan, and then devising ways to efficiently reuse what already exists while adding new applications and data.

enterprise resource planning (ERP) The use of complex applications employed by large businesses to integrate and manage all the different processes of a business across multiple divisions and organizational boundaries. Typically used on an intranet, it allows different parts of vast enterprises to readily share information.

extranet A closed network that is set up to conduct business among an organization's employees, between an organization and its customers, or between an organization and its suppliers. Extranets typically include Web sites that provide information to those with whom an organization wants to give limited access to its own network.

firewall A set of related programs that protects a private network from unauthorized external access. Typically firewalls are installed to keep outsiders from accessing information on an intranet. A firewall may also be used to prevent intranet users from accessing materials from the Internet.

FY01, FY02, FY03, FY04 The Federal Government operates on a fiscal year calendar from the October 1, 20xx to September 30, 20xx. Projects and initiatives discussed in the Modernization Blueprint can be referenced by the fiscal year of their development and operation.

gateway A connection from one network to another. The Internet can be viewed as a set of networks all connected by gateways. Typically gateways involve the use of routers and switches.

HTML The language of the World Wide Web. It is a set of markup symbols or codes inserted in a file that tell an Internet browser how to display a Web page.

Interactive Voice-Response (IVR) A software application that accepts a combination of voice telephone input and touch-tone keypad selection and provides appropriate responses in the form of voice, fax, callback, e-mail and perhaps other media. IVR is usually part of a larger application that includes database access.

Internet A worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers). Technically, what distinguishes the Internet is its use of a set of protocols called TCP/IP (Transmission Control Protocol/Internet Protocol). These protocols are implemented in almost every computer system from personal computers to mainframes.

intranet A private network within a company or organization. Typically, an intranet of several computers is linked to the Internet through some kind of gateway, so that a company can share information among insiders and also, where appropriate, share it with outsiders on the Internet (a setup that's also called an extranet).

legacy Refers to an existing application or information system that has a different architecture or functions that the current or planned information technology architecture. See middleware.

middleware A type of software used to permit two or more types of software to exchange data. Invisible to the user, middleware permits two incompatible software applications to work seamlessly together. Often middleware will be used to permit a legacy application to operate with others in a new architecture, or to support new or additional applications that require processes or data from legacy systems.

navigation In Web-based applications, the sequence of choices a user is presented which creates a path through the content. Navigation implies a specific organization of content and links available to the user.

outsourcing Contracting out an organization's functions to outsiders. Examples include everything from running customer relations to providing information processing.

performance-based organization (PBO) In government, "offices that deliver measurable services would get greater autonomy, in exchange for greater accountability for results"

portal 1) A World Wide Web site that is or proposes to be a major starting site for users when they get connected to the Web, or that users tend to visit as their primary site for information or e-business. There are general portals and specialized or niche portals. Typical services offered by general portal sites include a directory of Web sites, a facility to search for other sites, news, weather information, e-mail, stock quotes, phone and map information, and sometimes a community forum.

prototype 1)an original model on which something is patterned, **2)** a first full-scale and usually functional form of a new type or design.

public-key infrastructure (PKI) enables users of a basically insecure public network such as the Internet to securely and privately exchange data and money through the use of cryptography. Public-key refers to an encryption key pair that is obtained and shared through a trusted authority. The public key infrastructure provides a <u>digital certificate</u> that can identify individuals or organizations and directory services that can store and, when necessary, revoke them. A public key infrastructure consists of:

- A certificate authority (<u>certificate authority</u>) that issues and verifies a <u>digital certificate</u>. A certificate includes the public key or information about the public key
- A registration authority (<u>registration authority</u>) that acts as the verifier for the certificate authority before a digital certificate is issued to a requestor
- One or more directories where the certificates (with their public keys) are held (usually in a standard directory)

public-key encryption A method of encryption that uses a private and public key. For authentication, the private key is used for encryption and the public key is used for decryption. To protect the message, the public key is used for encryption and only the recipient can decrypt the message with the private key.

real-time A level of computer responsiveness that a user senses as sufficiently immediate or that enables the computer to keep up with some external process (for example, to present visualizations of the weather as it constantly changes). *Real-time* is an adjective pertaining to computers or processes that operate in real time. Real time describes a human rather than a machine sense of time.

router A device or, in some cases, software, that determines how to send information to its destination. The router is connected to at least two networks and decides which way to send data based on routing instructions. Routers are located at juncture points between networks.

server 1) The computer that runs one or more server programs, 2) A server is a computer program that provides services to other computer programs in the same or other computers such as a Web browser, 3) In the client/server programming model, a server is a program that awaits and fulfills requests from client programs in the same or other computers. Specific to the Web, a Web server is the computer program and/or computer that serves requested HTML pages or files. The Web browser is a client that requests HTML files from Web servers.

server farm A group of servers housed together in one location. The server farm usually functions as an off-site location where businesses store raw data, Web pages and online functions, or any combination of these.

single logon 1) In accessing information via a network, single logon permits a user to enter one name and password in order to access multiple applications. The single logon eliminates future authentication prompts when the user switches applications during that particular session. 2) In e-Commerce, the single logon is designed to centralize consumer financial information on one server.

supply chain management Coordinating processes involved in producing, shipping and distributing products. The term implies communications between several different businesses that, in combination, provide all of the processes for a product or set of products.

switch A network device that decides a route on which a piece of data or "message" is sent to its next destination.

TCP/IP Transmission control protocol/Internet protocol is the basic communication language, or protocol, of the Internet. Every computer with access to the Internet has a copy of the TCP/IP program that allows it to communicate with every other computer on the Internet.

three-tier architecture Refers to an application consisting of a graphical user interface (graphical user interface) server, an application (business logic) server, and a database server. Typically this is implemented with a Web browser-based graphical user interface at a personal computer or workstation, a second-tier business logic application or set of applications, generally an intranet or Internet server, and a third-tier database server, usually on a mainframe or large server. Older, legacy applications or their databases can be connected via an enterprise application interface.

transform In business organization, the change of an organization structured by product or service into one structured by customer. In information technology, the change of a legacy system into a different system generally divided into customer interaction and transaction processing rather than by business function. This often implies the change from an older technology into a newer technology or from batch processing to real-time processing.

Web hosting Housing, serving and maintaining files for one or more Web sites. Typically Web hosts have high-speed connections to the backbone of the Internet.

XML (Extensible Markup Language) A World Wide Web Consortium (W3C) recommended computer language that combines tags with data. Derived from SGML, its original purpose was a document that described its content using embedded tags. It has become the language of e-Commerce used to create common information formats and share both the format and the data on intranets and the Internet. XML is similar to the language used for Web pages, HTML. Both XML and HTML contain markup symbols to describe the contents of a page or file. For example, in XML the tag <phoneNumber> could indicate that the data that followed it was a phone number.

Appendix B -**Acronyms Used in the Modernization Blueprint**

Acronym	Title	
ACSI	American Customer Satisfaction Index	
ASP	Application Service Provider	
API	Application Program Interface	
CBS	Campus-Based System	
CDS	Central Data System	
CFO	Chief Financial Officer	
CIO	Chief Information Officer	
CMIS	Case Management Information System	
COD	Common Origination and Disbursements	
COO	Chief Operating Officer	
COTS	Commercial-Off-The-Shelf	
CPS	Central Processing System	
CRM	Customer Relationship Management	
DLSS	Direct Loan Servicing System	
EAC	Electronic Access Conference	
EAI	Enterprise Application Integration	
EC	e-Commerce	
ERP	Enterprise Resource Planning	
FAFSA	Free Application for Federal Student Aid	
FARS	Financial Accounting Reporting System	
FFEL	Federal Family Education Loan program	
FISAP	Fiscal Operations Report and Application to Participate	
FMS	Financial Management System	
FP	Financial Partner	
GA	Guaranty Agency	
GAPS	Grants Administrative & Payment System	
GSA	General Services Administration	
HR	Human Resources	
HRIS	Human Resources Information System	
IFAP	Information for Financial Aid Professionals	
IVRU	Interactive Voice-Response Unit	
LCS	Loan Consolidation System	
LEAPP	Leveraging Education Assistance Partnership Program	
LOC	Loan Origination Center	
LOS	Loan Origination System	

MDE Multiple Data Entry Systems

NASFAA National Association of School Financial Aid Administrators

NCHELP National Council for Higher Education Loan Programs

NSLDS National Student Loan Data System
OCTS Ombudsman Case Tracking System
PBO Performance-based organization

PEPS Postsecondary Education Participant System

PINs Personal ID numbers

QA Quality Assurance

RFMS Recipient Financial Management System
SFA [Office of] Student Financial Assistance

SFAU SFA University
SLC Software life cycle

SLEAPP Special Leveraging Education Assistance Partnership Program

TIVWAN Title IV wide area network
W3C World Wide Web Consortium
VFA Voluntary Flexible Agreement
XML Extensible Markup Language

Appendix C - Sources of More Information²

You may find other documents referred to in the Modernization Blueprint on the World Wide Web. The following is a selected list of additional resources:

Access America for Students

Customer Service Task Force

Department of Education

Direct Loan Website

www.ed.gov/offices/OSFAP/CSTF/index.html

www.ed.gov/offices/OSFAP/CSTF/index.html

Electronic Access Conferences

2000 Electronic Access Conferences edeworkshop.walcoff.com/secure/main.htm www.fafsa.ed.gov FAFSA on the Web Information for Financial Aid Professionals www.ifap.ed.gov Modernization Blueprint, previous version sfablueprint.ed.gov National Center for Educational Statistics www.nces.ed.gov National Student Loan Data System www.nsldsfap.ed.gov Office of Student Financial Assistance www.ed.gov/offices/OSFAP/ Performance Plan for Student Financial Assistance www.ed.gov/offices/OSFAP/plan.html

Performance Plan Progress Reports

Third Quarter Fiscal Year 2000 www.ed.gov/PDFDocs/3rdquart.pdf

Final Report
 www.ed.gov/PDFDocs/finalguarterly.pdf

PIN Registration pin.ed.gov

Postsecondary Education Participants Gateway www.ed.gov/offices/OSFAP/PEPS/index.html

Project EASI easi.ed.gov

Recipient Financial Management System (Pell Grants Online) www.pellgrantsonline.ed.gov

School Portal <u>sfa4schools.ed.gov</u>

SFA Extranet <u>extranet.sfa.ed.gov</u>

Student Aid Internet Gateway Online <u>sfadownload.ed.gov</u>

Third-Party Servicers and Software Providers Conference

June 2000 edeworkshop.walcoff.com/secure/thirdsessionsjune.htm

August 2000 <u>edeworkshop.walcoff.com/secure/thirdaug.htm</u>

Appendix D - Consultation

SFA regularly consults with community groups as it updates the Modernization Blueprint. This is a partial list of the groups where either SFA staff or representatives have made presentations, or met with the organizations or their representatives.

² The links in this appendix were verified as valid on October 18, 2000. Future reorganization of the Web site content may cause some of the links to be invalid.

- Advisory Committee for Student Financial Assistance (ACSFA)
- American Council on Education (ACE)
- Consumer Banker's Association (CBA)
- Education Finance Council (EFC)
- **ELM Resources**
- Federal Government PKI Steering committee
- IFX Forum
- National Association of Student Financial Aid Administrations (NASFAA)
- National Association of State Student Grant & Aid Program (NASSGAP)
- National Association of Student Loan Administrators (NASLA)
- National Automated Clearinghouse Association (NACHA)
- National Council of Higher Education Loan Programs, Inc (NCHELP)
- Post-Secondary Education Standards Council (PESC)
- School Portal Users group that meets as needed, but approximately monthly.
- Software Developers
- Student Loan Servicing Alliance (SLSA)

Appendix E- Detailed Integrated Sequencing Plan Link

Complete SFA Detailed Integrated Sequencing Plan, Release 2.0 dated 17 November 2000 (or later update), is available at http://technologyhandbook.sfa.ed.gov.